

In the Claims:

Please amend pending Claims 1 and 15, and delete Claim 14, as shown in the Listing of Claims below, which is a complete listing of all Claims ever presented and replaces all prior versions, and listings, of the Claims in the instant Application.

Listing of Claims

1. (Currently amended) A method of coating a glass substrate, said method comprising:

(a) providing a glass substrate;

(b) applying to the glass substrate a coating composition comprising:

(1) from 1%-to-98%, by weight, of a solventless[[,]] epoxy resin[[,]] reaction product of epichlorohydrin and at least one component selected from the group consisting of bisphenol A and bisphenol F, which reaction product has with a viscosity of 5,000 mPas-to-15,000 mPas at 20°C[[,]] which reaction-product and is liquid at 20°C;

(2) from 1%-to-98%, by weight, of a one or more water-dilutable epoxy resin hardeners selected from the group consisting of:

compound (B1), obtained by

(B1a) reacting, in the presence of a transesterification catalyst, one or more α,β -unsaturated carboxylic acid esters: $R^2R^3C=C(R^4)COOR^1$ (I), where R^1 is an aromatic or aliphatic radical containing up to 15 carbon atoms; and R^2 , R^3 and R^4 , independently, represent hydrogen, a branched or unbranched, aliphatic or aromatic group containing up to 20 carbon atoms, or $-(CH_2)_n-COOR^1$, where R^1 is as defined above; and n is a number from 0-to-10; with

(B1b) one or more aliphatic or aromatic hydroxy compounds, inert to transesterification catalysts, wherein compounds (B1a) and (B1b) are used in such quantities that the equivalent ratio of the hydroxyl groups in (B1b)-to-the group $COOR^1$ of formula (I) of

the α,β -unsaturated carboxylic acid esters in (B1a) is in the range of from 1.5:1-to-10:1, to obtain a first intermediate product Z1; then reacting Z1 with (B1c) one or more mono-, di- or polyaminopolyalkylene oxide compounds, at least partly soluble in water at 20°C, with average molecular weights of 148-to-5,000, an equivalent ratio of the reactive hydrogen atoms in the aminonitrogen atoms of (B1c)-to-the ester groups in Z1 being in the range of from 10:1-to-1:10, to obtain a second intermediate product Z2; then reacting Z2 with (B1d) one or more polyepoxides, the equivalent ratio of oxirane rings in polyepoxide (B1d)-to-the reactive hydrogen atoms of the mono-, di- or polyaminopolyalkylene oxide compounds used in (B1c) being adjusted to a value of from 100:1-to-1.5:1, to obtain a third intermediate product Z3; and reacting Z3 with (B1e) one or more members of the group consisting of primary and secondary amines, the equivalent ratio of oxirane rings in Z3-to-the reactive hydrogen atoms at the aminonitrogen atoms of (B1e) being adjusted to a value of from 1:1.5-to-1:20;

compound (B2), obtained by

(B2a) reacting one or more α,β -unsaturated carboxylic acid esters: $R^2R^3C=C(R^4)COOR^1$ (I), where R^1 is an aromatic or aliphatic radical containing up to 15 carbon atoms; and R^2 , R^3 and R^4 , independently, represent hydrogen, a branched or unbranched, aliphatic or aromatic group containing up to 20 carbon atoms, or $-(CH_2)_n-COOR^1$, where R^1 is as defined above; and n is a number from 0-to-10, with (B2c) one or more mono-, di- or polyaminopolyalkylene oxide compounds, at least partly soluble in water at 20°C, with average molecular weights of 148-to-5,000, wherein compounds (B2a) and (B2c) are used in such quantities that the equivalent ratio of the reactive hydrogen atoms in the aminonitrogen atoms of (B2c)-to-the C=C double bond in the α,β -position to the group $COOR^1$ of formula (I) in the carboxylic acid esters (B2a) is

in the range of from 10:1-to-1:10, to obtain a fourth intermediate product Z4; then reacting Z4 with

(B2d) one or more polyepoxides, the equivalent ratio of oxirane rings in polyepoxide (B2d)-to-the reactive hydrogen atoms in the mono-, di- or polyaminopolyalkylene oxide compounds (B2c) being adjusted to a value of from 100:1-to-1.5:1, to obtain a fifth intermediate product Z5; and reacting Z5 with

(B2e) one or more members of the group consisting of primary and secondary amines, the equivalent ratio of oxirane rings in the intermediate product Z5-to-the reactive hydrogen atoms in the aminonitrogen atoms of (B2e) being adjusted to a value from 1:1.5-to-1:20; and

compound (B3), obtained by

(B3a) reacting one or more α,β -unsaturated carboxylic acid esters: $R^2R^3C=C(R^4)COOR^1$ (I), where R^1 is an aromatic or aliphatic radical containing up to 15 carbon atoms; and R^2 , R^3 and R^4 , independently, represent hydrogen, a branched or unbranched, aliphatic or aromatic group containing up to 20 carbon atoms, or $-(CH_2)_n-COOR^1$, where R^1 is as defined above; and n is a number from 0-to-10, with

(B3c) one or more mono-, di- or polyaminopolyalkylene oxide compounds, at least partly soluble in water at 20°C, with average molecular weights of 148-to-5,000, compounds (B3a) and (B3c) being used in such quantities that the equivalent ratio of the reactive hydrogen atoms in the aminonitrogen atoms of (ac)-to-the C=C double bond in the α,β -position to the group $COOR^1$ of formula (I) in the carboxylic acid esters (B3a) is in the range of from 10:1-to-1:10, to obtain a sixth intermediate product Z6; then reacting Z6 with

(B3g) one or more aliphatic or aromatic polyhydroxy compounds, the equivalent ratio of ester groups in the intermediate compound Z6-to-hydroxy groups in the polyhydroxy

compound (B3g) being adjusted to a value of from 1:1.1-to-1:10, to obtain a seventh intermediate product Z7; then reacting Z7 with (B3d) one or more polyepoxides, the equivalent ratio of oxirane rings in polyepoxide (B3d)-to-hydroxyl groups in the intermediate product Z7 being adjusted to a value of from 1.5:1-to-6:1, to obtain an eighth intermediate product Z8; and reacting Z8 with (B3e) one or more members of the group consisting of primary and secondary amines, the equivalent ratio of oxirane rings in the intermediate product Z8-to-the reactive hydrogen atoms at the aminonitrogen atoms of (B3e) being adjusted to a value of from 1:1.5-to-1:20;

(3) from 1%-to-98%, by weight, of water; and

(4) optionally, additives; and then

(c) curing the coating composition.

2. (Canceled)

3. (Canceled)

4. (Original) The method according to claim 1, wherein the epoxy resin reaction product comprises a reaction product of epichlorohydrin and bisphenol A.

5. (Original) The method according to claim 1, wherein the glass substrate comprises a glass fiber.

6. (Previously presented) A coated glass fiber prepared by the process comprising:

(a) providing a glass fiber to be coated;

(b) providing a coating composition comprising: a solventless, liquid at 20°C, epoxy resin reaction product of epichlorohydrin and at least one component selected from the group consisting of bisphenol A and bisphenol F with a viscosity of 5,000 mPas to 15,000 mPas at 20°C in an amount of from 1 to 98% by weight, a water-dilutable epoxy resin hardener in an amount of from 1 to 98% by weight, water in an amount of from 1 to 98% by weight and optionally additives;

(c) applying the coating composition to at least a portion of the glass fiber; and

(d) curing the coating composition.

7. (Canceled)

8. (Original) The coated glass fiber according to claim 6, wherein the epoxy resin reaction product comprises a reaction product of epichlorohydrin and bisphenol A.

9. (Previously presented) A method of reinforcing synthetic fiber, said method comprising:

(a) providing a synthetic fiber;

(b) providing a coated glass fiber according to claim 6; and

(c) combining the synthetic fiber and the coated glass fiber;

whereby, a synthetic fiber reinforced with a coated glass fiber is formed.

10. (Previously presented) A composite material comprising the coated glass fiber according to claim 6.

11. (Previously presented) The method of claim 1 wherein the coating composition is cured at ambient temperatures.

12. (Previously presented) The coated glass fiber of claim 6 wherein the coating composition is cured at ambient temperatures.

13. (Previously presented) A reinforced synthetic fiber comprising: a synthetic fiber and a reinforcing fiber comprising a coated glass fiber of claim 6.

14. (Canceled)

15. (Currently amended) ~~The~~ A coated glass fiber prepared by a process comprising:

(a) providing a glass fiber to be coated;

(b) providing a coating composition comprising: a solventless, liquid at 20°C, epoxy resin reaction product, with a viscosity of 5,000-to-15,000 mPas at 20°C, of epichlorohydrin and at least one component selected from the group consisting of bisphenol A and bisphenol F, in an amount of from 1-to-98%, by weight, a water-dilutable epoxy resin hardener in an amount of from 1-to-98%, by weight, water in an amount of from 1-to-98%, by weight, and, optionally, additives;

(c) applying the coating composition to at least a portion of the glass fiber; and

(d) curing the coating composition,

~~of claim 6~~ wherein the hardener comprises at least one member selected from the group consisting of compound (B1), compound (B2) and compound (B3), according to Claim 1.